WORKSHEET W-5 2006

GROUNDWATER RIGHT/PERMIT/
BMP Farm Unit NO. ____________

1 DWR WELL REGISTRATION NO.

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE | MAKE / MODEL

SIZE | INSTALLATION OR OVERHAUL DATE

3 POWER CO. NAME | ACCOUNT NO. | GAS METER NO.

4

Date of Measurement	Head or Stage (Specify Units)	F	Discharge (Gals/Min)	Cubic Ft. Sec.
A MINIMUM OF TWO MEASURE MENTS IS REQUIRED	TOTALS			

5 AVERAGE DISCHARGE ______ FACTOR B

6 ______ FACTOR F

7 AVERAGE CUBIC FT. SEC. ______ FACTOR C

8 DIVIDER = 195500 X $\frac{F \times C}{B}$ = ______

9 ENERGY CONSUMPTION ______ Therms

10 GROUNDWATER WITHDRAWN = $\frac{\text{Box } 9}{\text{Box } 8}$ = ______ ACRE FEET

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WORKSHEET W-5

ARIZONA DEPARTMENT OF WATER RESOURCES

NOTE: This method cannot be used when energy meter serves other uses.

OPEN CHANNEL FLOW
WITH PUMPAGE CALCULATED USING
NATURAL GAS ENERGY RECORDS

INSTRUCTIONS

Note: If any information pre-printed on this form is incorrect, please make the needed corrections.
For that information not already preprinted on this form, please follow the directions below.

1. Enter DWR well registration number & location in [1].
2. If the meter has been changed during the reporting year, enter type, make, model and size of measuring used to measure discharge in device [2]. If the device is permanent, enter date installed or last overhauled.
3. Enter power company name, account number and meter number in [3].
4. Enter date of measurement, head or stage recording* of the open channel flow, Factor F for the meter as shown on your power bill, the pump discharge, and the cubic feet per second of the gas meter, for each measurement taken in [4]. **A minimum of two measurements is required.** These measurements should be taken during the spring and in late summer if possible. Measuring more often produces more accurate results. It is desirable to operate the pump at least 24 hours before measuring the discharge.

   * For submerged conditions, provide the values obtained for both upstream and downstream heads.

   If the Clausen Weir Rule is used, provide height of orifice (Ho) and A scale and B Scale readings.
5. Add the values in the pump discharge column and divide by the number of measurements to obtain the average discharge which is designated as Factor B. Enter in [5].
6. Repeat the same procedure for the F column to obtain the average for F which is desginated as Factor F. Enter in [6].
7. Repeat the same procedure for the cubic ft./sec column to obtain the average cubic feet per second of gas which is designated as Factor C. Enter in [7].
8. Enter Factor F, Factor B, and Factor C in the formula provided. Complete the calculation as shown to obtain the divider. Enter in [8].
9. Enter the total energy consumption used in therms. This amount may be obtained from your natural gas energy bills as well as the initial and ending readings from your meter. Enter in [9].
10. Divide the total energy consumption entered in [9] by the value computed in [8] to obtain the total groundwater withdrawn by the well. Enter in [10].

ENTER THE FOLLOWING ON SCHEDULE A OR PART 1 OF SCHEDULE A-GSF

WORKSHEET W-5 **SCHEDULE A**

Box [1] --- DWR well registry number & location in column [2] if not already shown.
Box [10] --- Groundwater withdrawn in column [13].

NOTE: THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A OR A-GSF.